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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,219	12/19/2000	Adam Bosworth	104402.00119	7676
74739 7590 07/14/2009 Squire, Sanders & Dempsey L.L.P. Oracle International Corporation 8000 Towers Crescent Drive 14th Floor Vienna, VA 22182			EXAMINER VU, TUAN A	
			ART UNIT 2193	PAPER NUMBER
			MAIL DATE 07/14/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/741,219	<b>Applicant(s)</b> BOSWORTH ET AL.	
	<b>Examiner</b> TUAN A. VU	<b>Art Unit</b> 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21, 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This action is responsive to the Applicant's response filed 3/24/09.

As indicated in Applicant's response, claims 1, 11, 21 have been amended. Claims 1-21, 25 are pending in the office action.

### *Claims Rejections – 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-21, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C, 'XML Path Language (XPath)' and 'XSL Transformation (XSLT) Version 1.0; W3C Recommendation 16 November 1999, respectively < <http://www.w3.org/TR/1999/REC-xpath-19991116> > and < <http://www.w3.org/TR/xslt> > (hereinafter W3C – submitted in previous Office Action) in view of Renner et al., USPN: 6,993,657 (herein Renner)

**As per claim 1**, W3C discloses a computer-implemented method of computing comprising:

receiving at execution time, a data processing specification having a first and a second data processing cell specification; specifying a first and a second data processing cell respectively, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (e.g. *template match* - sec 7.1, pg. 28, 32; sec 7.6, pg. 35-36),

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the first data processing cell having a data dependency on the second data processing cell based on a reference to the second data processing cell in the formula that requires computation of the second data processing cell to evaluate the formula (e.g. *<xsl: value-of select ...this expression is evaluated ... call to a string function ... string-value of the created node, match = "person", @given-name, @family-name* - sec 7.6.1, pg. 36 – Note: analyzing *value-of select* to obtain string-value or to yield actual value hold by *@given-name, @family-name* reads on dependency of first cell based on reference – *person: given-name, family name* - to the second data processing cell in the formula, reference whose value requires evaluation or computation *value-of select* of second data cell);

analyzing in real time, the data processing specification including the first and then the second data processing cell specification, to determine execution order of said plurality of statements specified by said first data processing cell specification, based at least in part on interaction or computation references between said first and second data processing cells (sec 7.3, 7.6.1, pg 35-37; *value= ... value of select* -sec 7.7, pg. 38; sec 8, pg. 43);

generating one or more execution flow descriptions (e.g. *result tree* – sec 7, pg. 26-42; template which can be instantiated into *a result tree* – sec 1 Introduction, pg. 4) describing the execution order of said plurality of statements of said first data processing cell specification based on results of the determination, and

upon completion of the analyzing and generating, effectuating the data processing specified by the data processing specification in accordance with the execution flow descriptions (e.g. *XSLT processor ... outputting the result tree as XML ... result element written in the stylesheet as ... would be output as ...CDATA* - sec 16.1, pg. 65-66; *it would produce the*

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*following result* `<?xml version ... </html>` pg. 68; D.2 : *HTML output is:* pg. 86; *data into VRML* - pg. 88).

W3C does not explicitly disclose first and second cell specification being unnested with respect to each other.

In a similar XSLT scripting approach to render XML or HTML output as W3C, Renner discloses the same first cell specification including a action/computation (Table 4, *<FORM Name> ... xsl:apply-templates select = "custom" ... </FORM>*, lines 16-21; *<xsl:template match = "custom" ... xsl:apply-template select = "input[...]" ... </xsl:template>* - lines 24-31); and second cell specification, such that first data processing cell having a data dependency on the second data processing cell, and specified in a manner to be analyzed before the second data processing cell (e.g. second cell group: lines 33-35, 36-38, 39-41, 42-44, 45-47 – Note: line 26 processed before line input of name type being resolved – value-of select - in lines 34, 37, 40, 43, 46); with disposition of first and second cell specification such that first and second cell are unnested with respect to each other. Based on W3C separating of template group cells so that action required from the first cell group necessitates resolving in a distinct second cell group (see *<template name= number-block>*; *< template match ... call-template name=numbered-block>* sec 11.6, pg. 51-52, bottom; D.1: *xsl: template match = para; xsl: template match = note* pg. 83) it would have been obvious for one skill in the art at the time the invention was made to implement XSLT template matching operations as purported in W3C and grouping as above for action or computation of first cell such that value resolving in second cell would fulfill the data dependency in the first cell so that first and second cell are clearly unnested with respect one another as in Renner because this would yield greater flexibility and clarity to W3c intended

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group of actions needed to resolve a larger number or variety of type of data/parameter or value via implementing numerously distinct second group of cells, the resolution of values thereof would fulfill the data required to resolve the other distinct first group of cells, as this has been perceived from the above two similar approaches.

**As per claim 2**, W3C discloses wherein each of said first and second data processing cell specifications is delineated by a beginning and an ending data processing cell specification tag (e.g. sec 11.6, pg. 51-52, bottom).

**As per claim 3**, W3C discloses wherein said first data processing cell specification has a formula referencing a value of said second data processing cell specification (sec 11.6, pg. 51-52, bottom; *template match ... select value-of* - sec 7.6.1, pg 36; sec 7.7, pg. 38).

**As per claims 4-5**, W3C discloses wherein one or both of said first and second data processing cell specifications comprise one or more attribute specifications specifying one or more attributes (e.g. sec 7.6.2 Value Templates, pg. 37; *number format* = " *{format}* "; *with-param name* = "*format*", pg. 52 top) of the corresponding data processing cell(s); wherein the first data processing cell has a first attribute referencing a second attribute of said second data processing cell.

**As per claim 6**, W3C discloses wherein said second data processing cell specification comprises a reserved mnemonic for providing input (sec 7.6.2: *\$image-dir ; {size/@width}* pg. 37; *item[position() = \$n]*, pg. 49) to the data processing specified by the data processing specification.

**As per claim 7**, W3C discloses wherein said first data processing cell specification is a reserved output cell specification specifying output of the data processing specified by the data

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processing specification (*xsl: output*, *xsl: output method* – pg. 7; chp. 16.1, 16.2 pg. 64-68; *xsl:output* pg. 75).

**As per claim 8**, W3C discloses wherein said second data processing cell specification comprises a conditionally executed formula (e.g. *<xsl: if... />* pg. 74; *<xsl: otherwise ... />*– pg. 75).

**As per claims 9-10**, W3C discloses wherein said data processing specification further includes one or more global attributes (e.g. *xsl: stylesheet version = "1.0" xmlns:xsl="http://... xmlns="http://www.w3.org/1999... /strict">* pg. 7, 9) specifying one or more global processing characteristics for the specified data processing; wherein said one or more global attributes include a global attribute specifying a format for providing the specified data processing with an HTTP request (e.g. *<xsl: stylesheet version="1.0" xmlns:xsl="http:// ... /strict">* pg. 83).

**As per claim 11**, W3C discloses an apparatus comprising:  
at least one storage unit having stored thereon programming instructions designed to:  
receive at execution time, a data processing specification having a first and a second data processing cell specification; specifying a first and a second data processing cell, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (e.g. *template match* - sec 7.1, pg. 28, 32; sec 7.6, pg. 35-36),

the first data processing cell having a data dependency on the second data processing cell, based on a reference to the second data processing cell in the formula that requires computation of the second data processing cell to evaluate the formula (e.g. *<xsl: value-of select ...this expression is evaluated ... call to a string function ... string-value of the created node, match = "person", @given-name, @family-name* - sec 7.6.1, pg. 36 – Note: analyzing *value-of select* to

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obtain string-value or to yield actual value hold by *@given-name*, *@family-name* reads on dependency of first cell based on reference – *person: given-name, family name* - to the second data processing cell in the formula, reference whose value requires evaluation or computation *value-of select* of second data cell),

analyze in real time, the data processing specification in a first pass through of the data processing specification to determine an execution order of said plurality of statements specified by said first and second data processing cell specifications, based at least in part on interaction or computation references between said actions or computations specified (sec 7.3, 7.6.1, pg 35-37; value = ... value of select -sec 7.7, pg. 38; sec 8, pg. 43);

generate one or more execution flow descriptions describing the execution order of said plurality of statements of said first data processing cell specification based on results of the determination (e.g. *result tree* – sec 7, pg. 26-42; template which can be instantiated into a *result tree* – sec 1 Introduction, pg. 4), and

effectuate the data processing specified by the data processing specification, wherein the data processing specified by the data processing specification is executed in accordance with the execution flow descriptions (e.g. *XSLT processor ... outputting the result tree as XML ... result element written in the stylesheet as ... would be output as ...CDATA* - sec 16.1, pg. 65-66; *it would produce the following result <?xml version ... </html>* pg. 68; D.2 : *HTML output is:* pg. 86; *data into VRML* - pg. 88 – Note: processing the xsl tree to yield output in XML, HTML reads on processing after result tree is completed); and



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at least one processor coupled to said at least one storage unit to execute said programming instructions (*XSLT 1.0 processor* – sec 2.5, pg. 10 bottom; sec 2.1: *XSLT processor* – pg 6).

W3C does not explicitly disclose that first and second cell specification are being unnested with respect to each other. But this limitation has been addressed in claim 1.

**As per claims 12-20**, refer to claims 2-10, respectively.

**As per claim 21**, W3C discloses a computer with a memory having stored thereon instructions that when executed cause to the computer to implement data processing comprising means for:

receiving at execution time, a data processing specification having a first and a second data processing cell specifications; specifying a first and a second data processing cell, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (refer to claim 11),

the first data processing cell having a data dependency of the second data processing cell, based on a reference to the second data processing cell in the formula that requires computation of the second data processing cell to evaluate the formula (refer to claim 11);

analyzing in real time, the data processing specification in a first pass through of the data processing specification to determine an execution order of said plurality of statements specified by said first and second data processing cell specifications, based at least in part on interaction or computation references between said actions or computations specified (refer to claim 11),

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generating one or more execution flow descriptions describing the execution order of said plurality of statements of said first data processing cell specification based on results of the determination (refer to claim 11), and

effectuating the data processing specified by the data processing specification, wherein the data processing specified by the data processing specification is executed in accordance with the execution flow descriptions (refer to claim 11).

W3C does not explicitly disclose that first and second cell specification are being unnested with respect to each other. But this limitation has been addressed in claim 1.

**As per claim 25**, W3C does not disclose wherein the execution flow descriptions comprise interdependency information representing by a directed graph; but since XML elements amount to a hierarchical structure being basically a directed tree, the result tree by W3C entails a structure similar to XML elements (result tree – sec 1, Introduction pg. 4 – Note: conformance in namespace between XSLT language and XML language – see sec 2.1 pg. 6 - reads on tree having directed structure because XML parse tree is always directed). It would have been obvious for one skill in the art at the time the invention was made to the result tree as set forth above so that this tree is directed graph, because of the compliancy in namespace and the deriving of XML document from parsing the result tree (e.g. sec 16.1, pg. 65-66; *it would produce the following result* `<?xml version ... </html>` pg. 68)

### ***Response to Arguments***

4. Applicant's arguments filed 3/24/09 have been fully considered but they are not persuasive. Following are the Examiner's observation in regard thereto.

### **USC 103 Rejection**

Applicants have submitted that W3C does not (nor does Renner) teach or suggest 'data processing cell that require a second data processing cell to be evaluated first in order to compute the formula, based in part of the execution flow descriptors in the Specification. The language recited as 'based on a reference to the second data processing cell in the formula that requires computation of the second data processing cell to evaluate the formula' has been interpreted independent of the proffered 'flow descriptors' in the Specifications, and is deemed matched by W3C cell specifications context (refer to more detailed explanation in the Rejection) implicating the formula value-of select and the references or parameters found in parsing the formula. The semantic broadness of what is phrased as 'based on a reference to the second ... cell' is not enforcing a significantly narrow reconstruction or interpretation of this limitation so to obviate the cited parts in W3c, and arguing the 'flow descriptors' is distinguishing from W3C would be improperly importing additional teaching into the claim. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the reference.

In all, the claims stand rejected as set forth in the Office Action.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 ( for non-official correspondence - please consult Examiner before using) or 571-273-8300 ( for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

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July 11, 2009